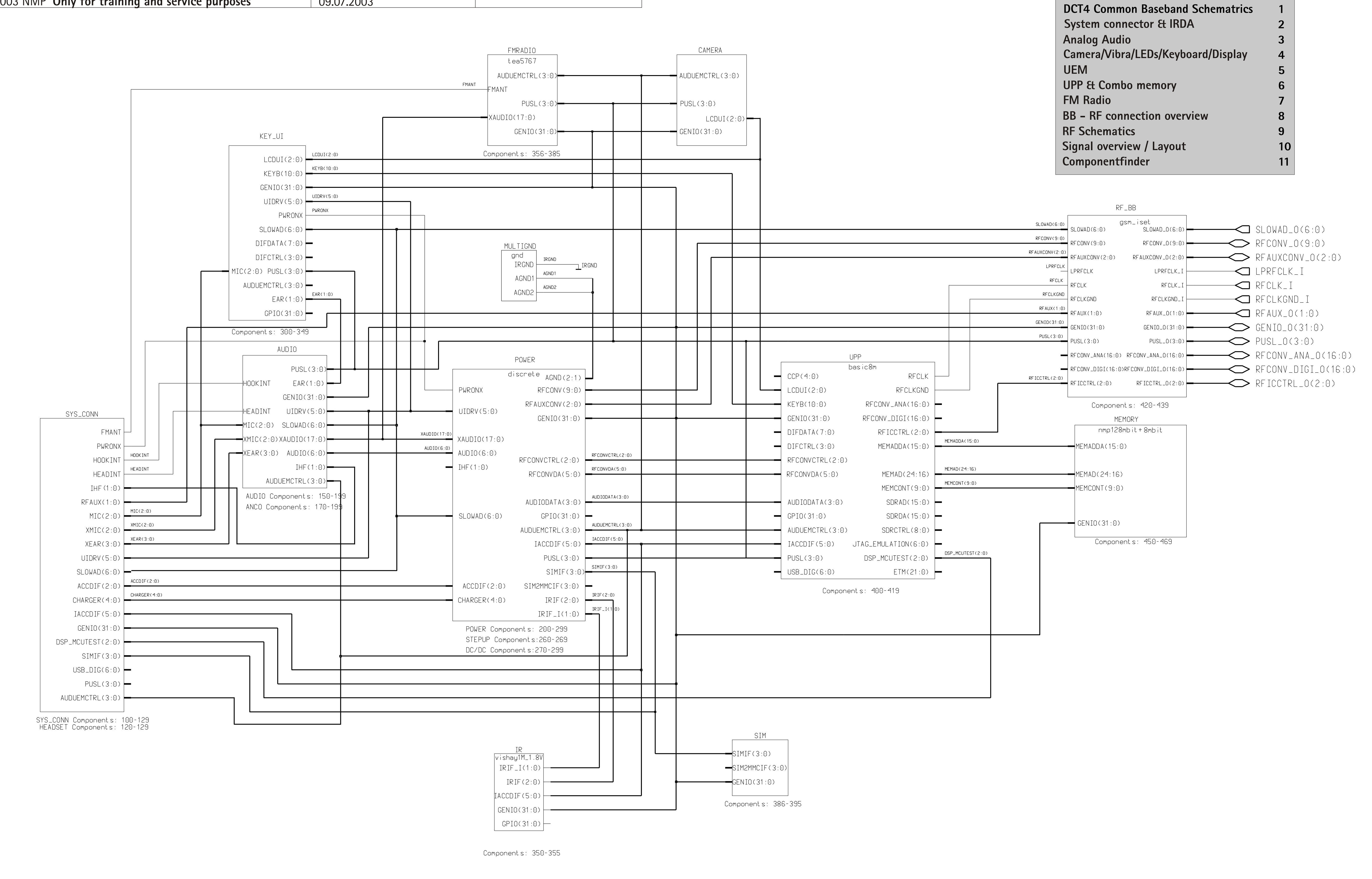
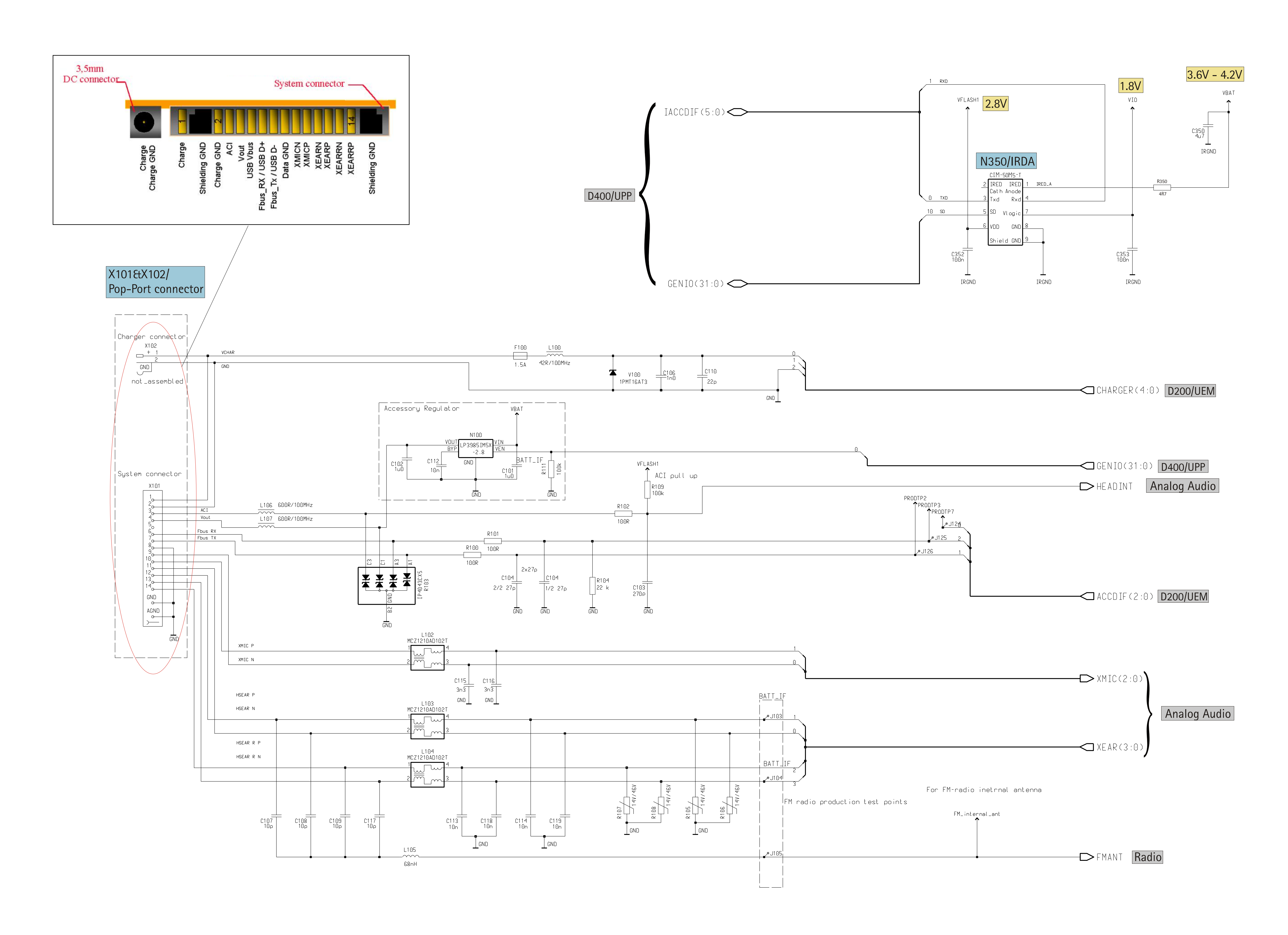
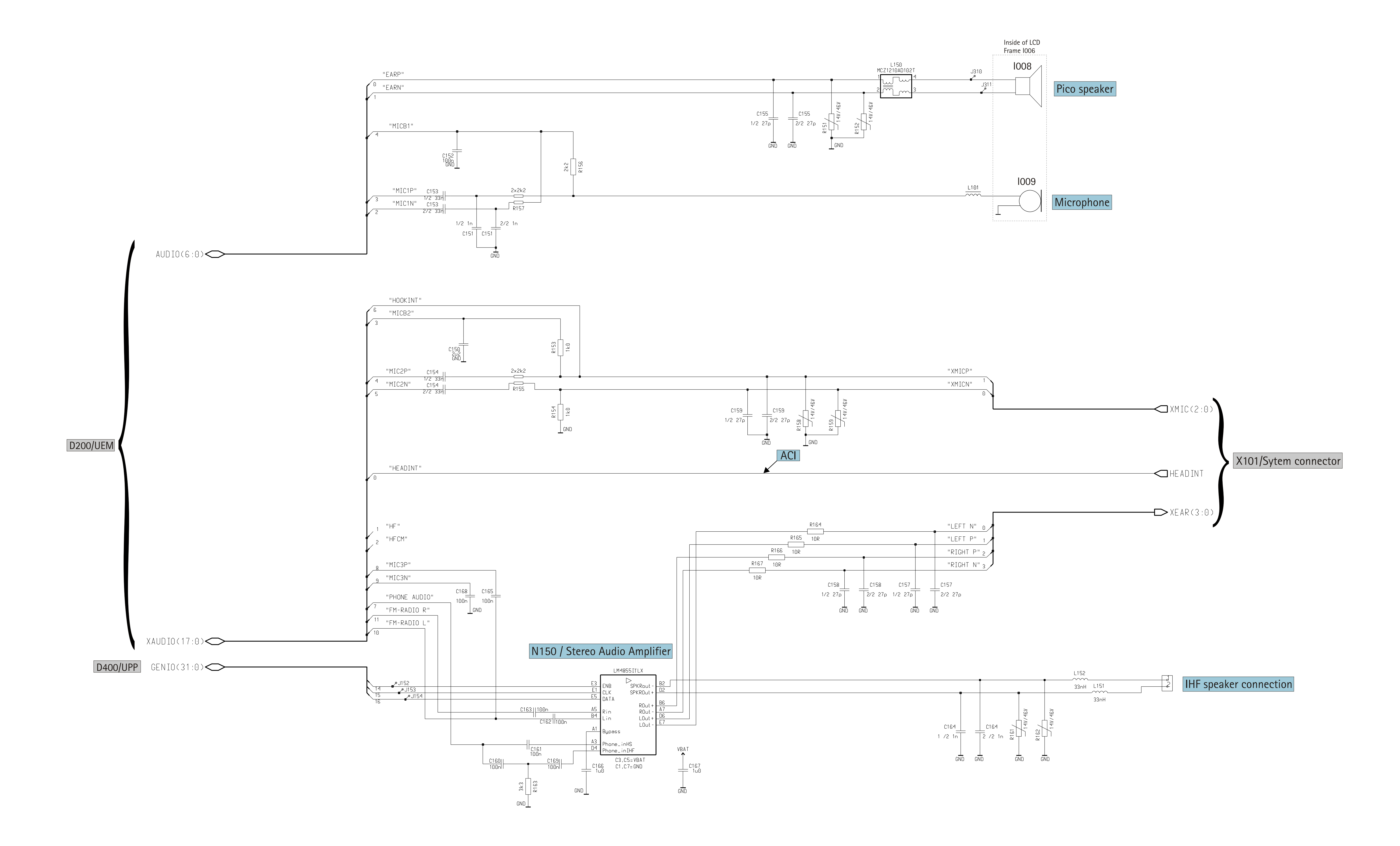
NOKIA	COMPANY CONFIDENTIAL		1(11)
Customer Care Europe, Middle East & Africa	DCT4 Common Baseband	Version 2.0 Approved	
SCCE Training Group	NHL-4j/NHL-4jx (7250/7250i)	(PCB) Version_tb3_10a	
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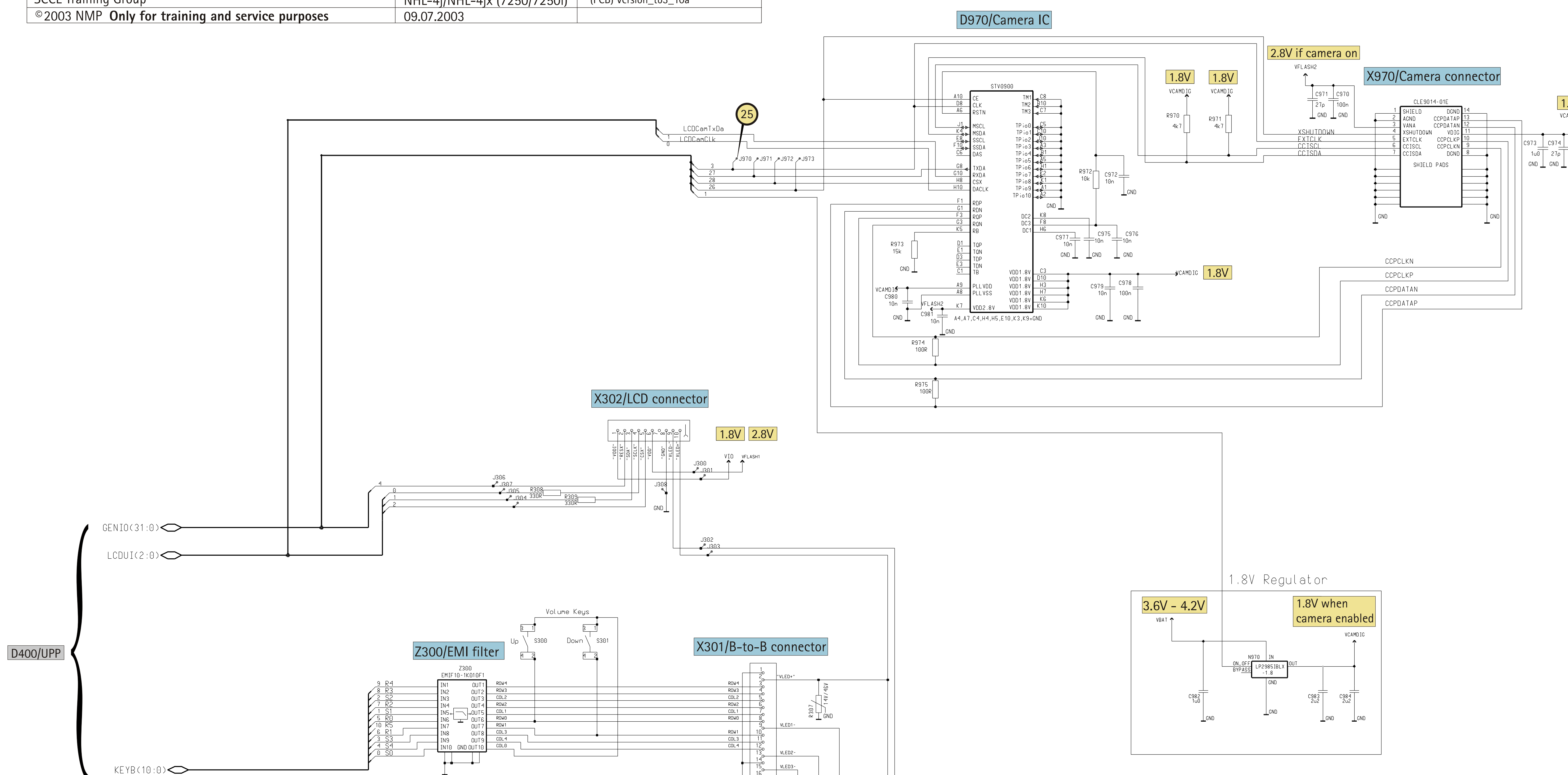




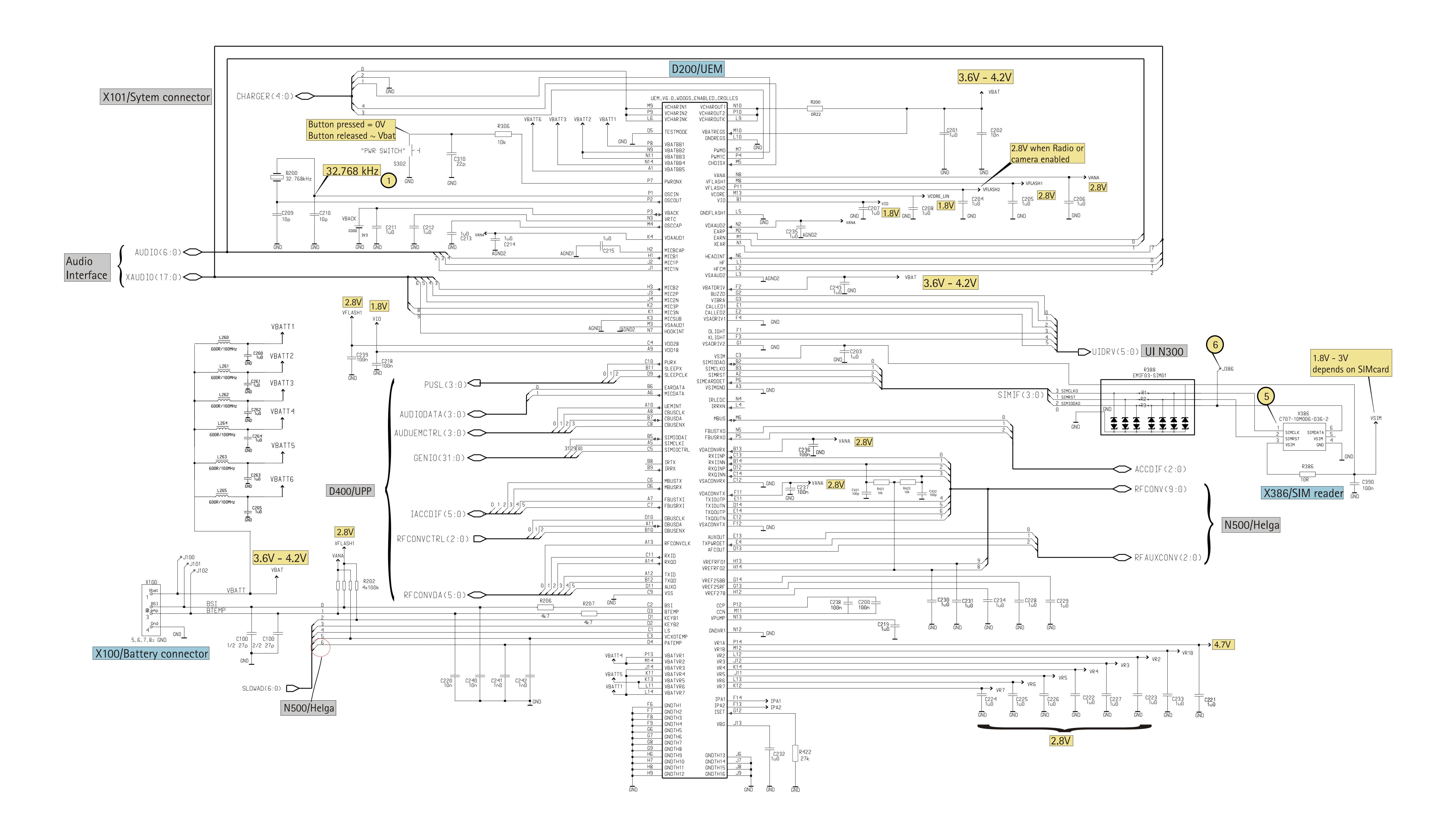
3,5mm DC connector
System connector
Charge
Charge GND
Charge
Shielding GND
Charge GND
ACI
Vout
USB Vbus
Fbus_RX / USB D+
Fbus_Tx / USB D-
Data GND
XMICN
XMICP
XEARN
XEARP
XEARRN
XEARRP
Shielding GND
X101&X102/ Pop-Port connector
D400/UPP
IACCDIF(5:0)
GENIO(31:0)
N350/IRDA
2.8V
1.8V
3.6V - 4.2V
VFLASH1
VIO
VBAT
Charger connector
System connector
Accessory Regulator
CHARGER(4:0)
D200/UEM
GENIO(31:0)
D400/UPP
HEADINT
Analog Audio
ACI pull up
ACCDIF(2:0)
D200/UEM
XMIC(2:0)
XEAR(3:0)
Analog Audio
FM radio production test points
For FM-radio inetrnal antenna
FMANT
Radio



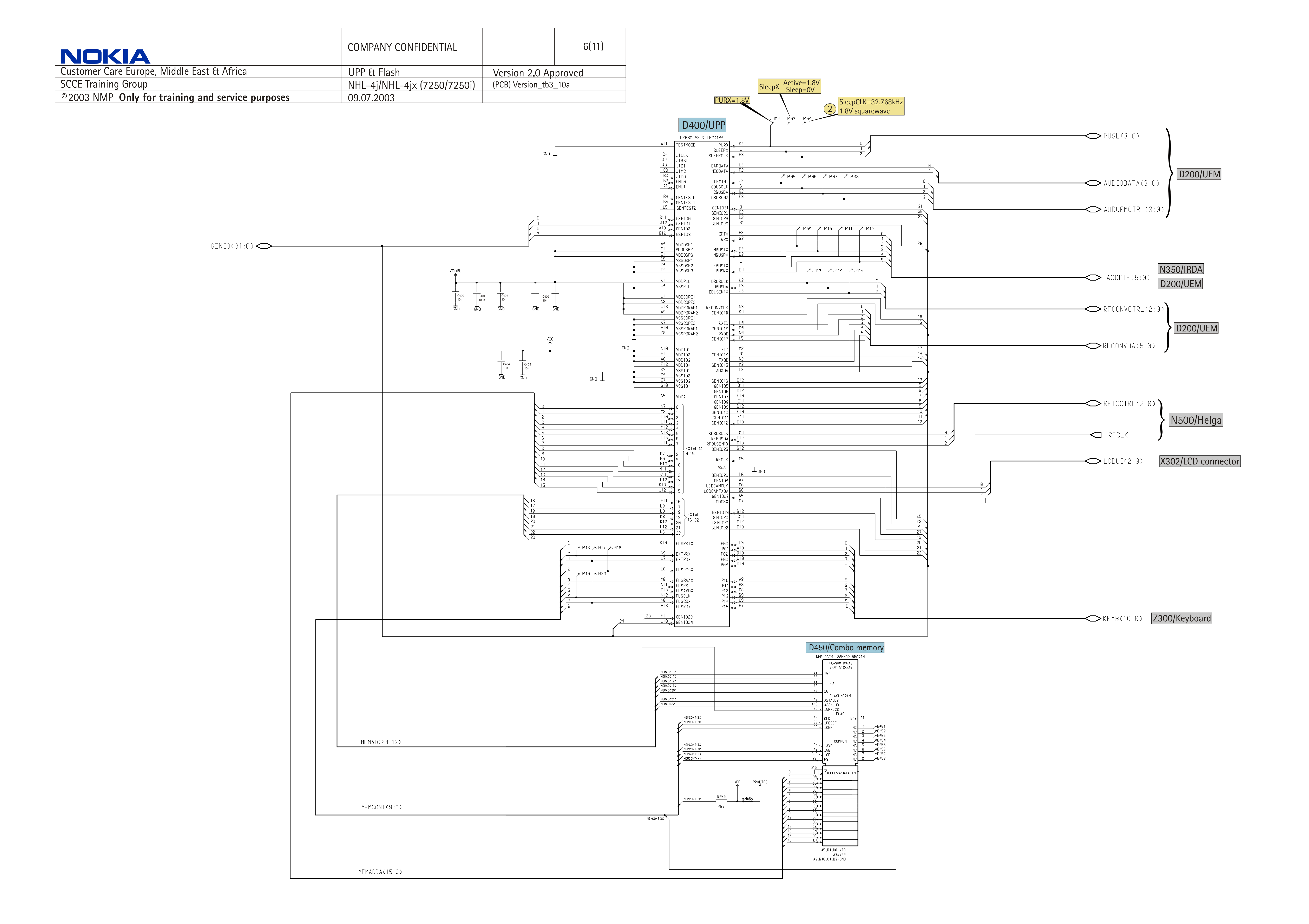
Inside of LCD
Frame I006
I008
Pico speaker
I009
Microphone
"EARP"
"EARN"
"MIC1B"
"MIC1P"
"MIC1N"
AUDIO(6:0)
L150
MCZ1210AD102T
L101
"HOOKINT"
"MICB2"
"MIC2P"
"MIC2N"
"XMICP"
"XMICN"
XMIC(2:0)
D200/UEM
ACI
"HEADINT"
HEADINT
X101/Sytem connector
XEAR(3:0)
"HF"
"HFCM"
"MIC3P"
"MIC3N"
"PHONE AUDIO"
"FM-RADIO R"
"FM-RADIO L"
"LEFT N"
"LEFT P"
"RIGHT P"
"RIGHT N"
XAUDIO(17:0)
N150 / Stereo Audio Amplifier
D400/UPP
GENIO(31:0)
LM4855ITLX
IHF speaker connection
VBAT

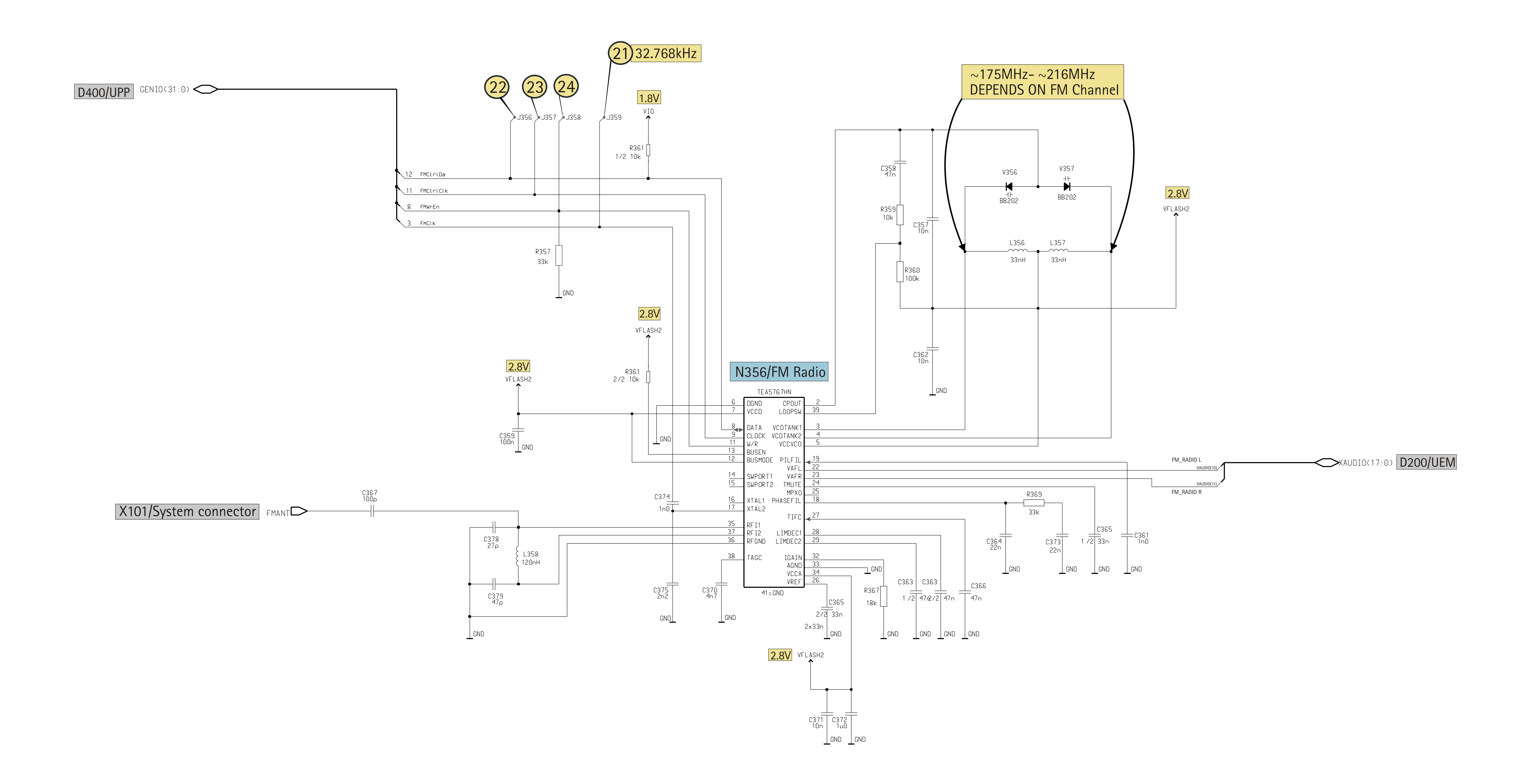


D970/Camera IC
2.8V if camera on
1.8V
1.8V
X970/Camera connector
1.8V
STV0900
CLE9014-01E
25
LCDCamTxDa
LCDCamClk
XSHUTDOWN
EXTCLK
CCISCL
CCISDA
CCPCLKN
CCPCLKP
CCPDATAN
CCPDATAP
1.8V
X302/LCD connector
1.8V
2.8V
GENIO(31:0)
LCDUI(2:0)
KEYB(10:0)
D400/UPP
1.8V Regulator
3.6V - 4.2V
1.8V when camera enabled
LP2985IBLX-1.8
Volume Keys
Up
Down
S300
S301
Z300/EMI filter
EMIF10-1K010F1
X301/B-to-B connector
D200/UEM
UIDRV(5:0)
M300/Vibra
3.6V - 4.2V
not_assembled
N300/White LED driver for display/keyboard
TK11851L
3.6V - 4.2V
Feedback

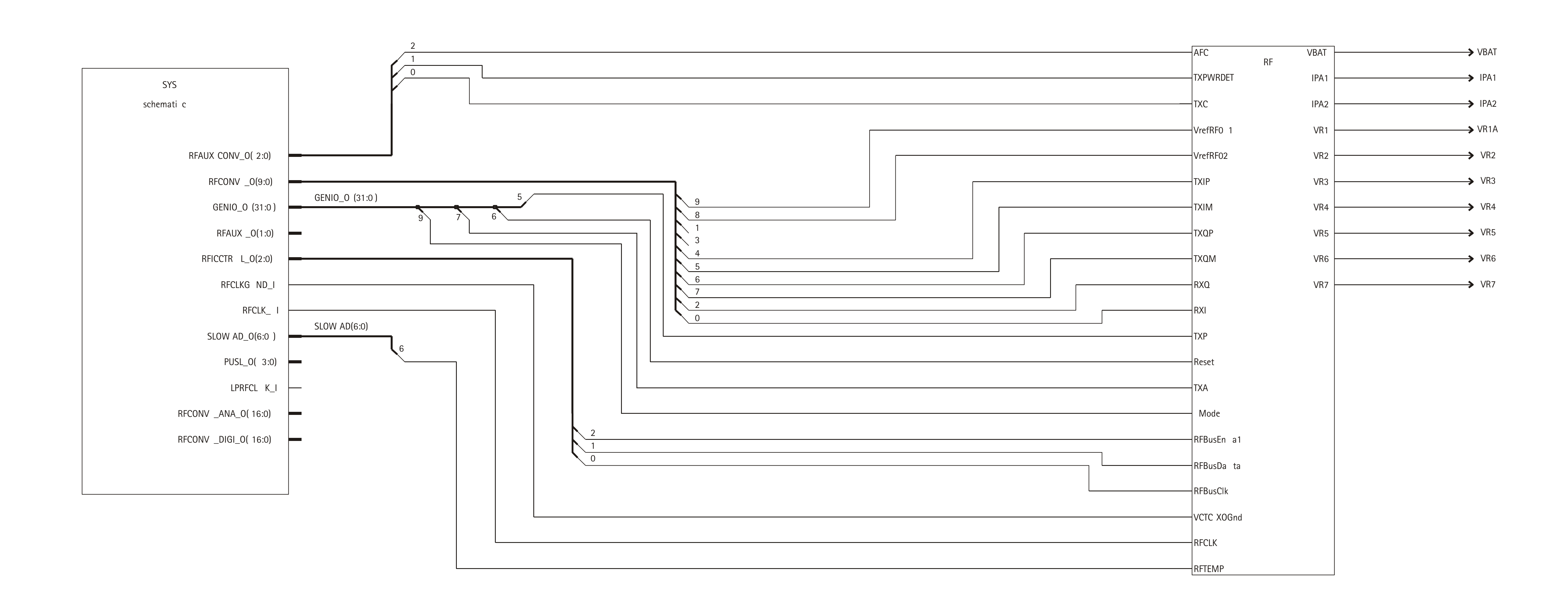


D200/UEM
X101/Sytem connector
CHARGER(4:0)
Button pressed = 0V
Button released ~ Vbat
"PWR SWITCH"
32.768 kHz
3.6V - 4.2V
2.8V when Radio or camera enabled
2.8V
1.8V
Audio Interface
AUDIO(6:0)
XAUDIO(17:0)
UIDRV(5:0)
UI N300
1.8V - 3V depends on SIMcard
SIMIF(3:0)
X386/SIM reader
ACCDIF(2:0)
RFCONV(9:0)
RFAUXCONV(2:0)
N500/Helga
D400/UPP
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(3:0)
GENIO(31:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
X100/Battery connector
SLOWAD(6:0)
4.7V
VBATT1
VBATT2
VBATT3
VBATT4
VBATT5
VBATT6
VBAT
BSI
BTEMP


NOKIA
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Customer Care Europe, Middle East & Africa
UPP & Flash
Version 2.0 Approved
SCCE Training Group
NHL-4j/NHL-4jx (7250/7250i)
(PCB) Version_tb3_10a
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09.07.2003
SleepX Active=1.8V Sleep=0V
PURX=1.8V
SleepCLK=32.768kHz 1.8V squarewave
2
D400/UPP
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(3:0)
D200/UEM
GENIO(31:0)
IACCDIF(5:0)
N350/IRDA
D200/UEM
RFCONVCTRL(2:0)
RFCONVDA(5:0)
D200/UEM
RFICCTRL(2:0)
RFCLK
N500/Helga
LCDUI(2:0)
X302/LCD connector
KEYB(10:0)
Z300/Keyboard
D450/Combo memory
MEMAD(24:16)
MEMCONT(9:0)
MEMADDA(15:0)
VCORE
VIO
GND



D400/UPP
GENIO(31:0)
21
32.768kHz
22
23
24
J356
J357
J358
J359
1.8V
VIO
R361
1/2 10k
12 FMCtrlDa
11 FMCtrlClk
8 FMWrEn
3 FmClk
R357
33k
GND
~175MHz- ~216MHz
DEPENDS ON FM Channel
C358
47n
R359
10k
C357
10n
V356
V357
BB202
L356
L357
33nH
R360
100k
C362
10n
2.8V
VFLASH2
R361
2/2 10k
N356/FM Radio
TEA5767HN
C359
100n
DGND
VCCD
DATA
CLOCK
W/R
BUSEN
BUSMODE
SWPORT1
SWPORT2
XTAL1
XTAL2
RFI1
RFI2
RFGND
TAGC
CPOUT
LOOPSW
VCOTANK1
VCOTANK2
VCCVCO
PILFIL
VAFL
VAFR
TMUTE
MPXO
PHASEFIL
TIFC
LIMDEC1
LIMDEC2
IGAIN
AGND
VCCA
VREF
41=GND
C374
1n0
X101/System connector
FMANT
C367
100p
C378
27p
L358
120nH
C379
47p
C375
2n2
C370
4n7
C365
2/2 33n
2x33n
R367
18k
C363
1/2 47n
2/2 47n
C366
47n
C371
10n
C372
1u0
R369
33k
C364
22n
C373
22n
1/2 33n
C361
1n0
FM_RADIO L
FM_RADIO R
XAUDIO(17:0)
D200/UEM



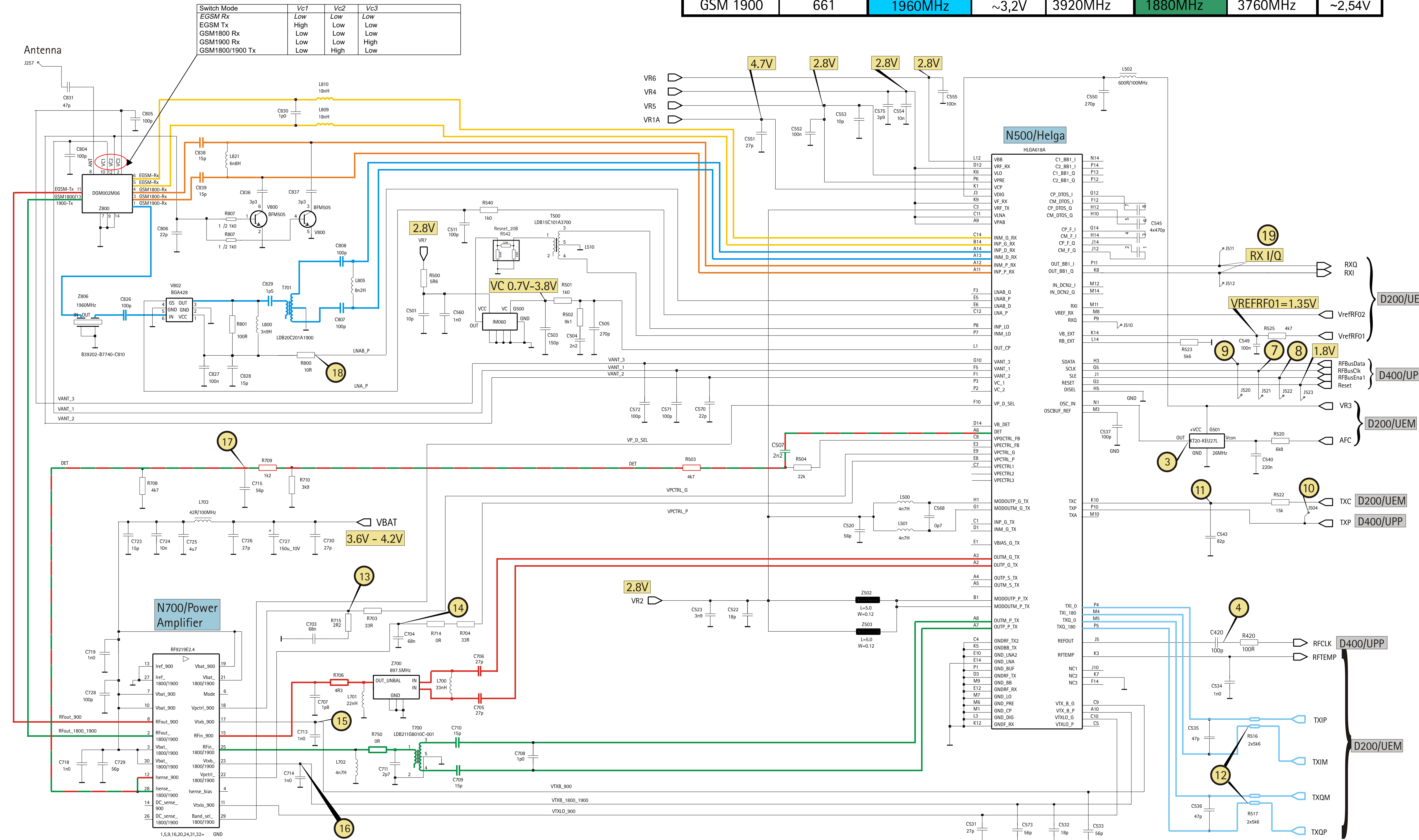
SYS
schematic
RFAUX CONV_O(2:0)
RFCONV _O(9:0)
GENIO_O (31:0)
RFAUX _O(1:0)
RFICCTR L_O(2:0)
RFCLKG ND_I
RFCLK_ I
SLOW AD_O(6:0)
PUSL_O(3:0)
LPRFCL K_I
RFCONV _ANA_O(16:0)
RFCONV _DIGI_O(16:0)
GENIO_O (31:0)
SLOW AD(6:0)
RF
AFC
TXPWRDET
TXC
VrefRF0 1
VrefRF02
TXIP
TXIM
TXQP
TXQM
RXQ
RXI
TXP
Reset
TXA
Mode
RFBusEn a1
RFBusDa ta
RFBusClk
VCTC XOGnd
RFCLK
RFTEMP
VBAT
IPA1
IPA2
VR1
VR2
VR3
VR4
VR5
VR6
VR7
VBAT
IPA1
IPA2
VR1A
VR2
VR3
VR4
VR5
VR6
VR7

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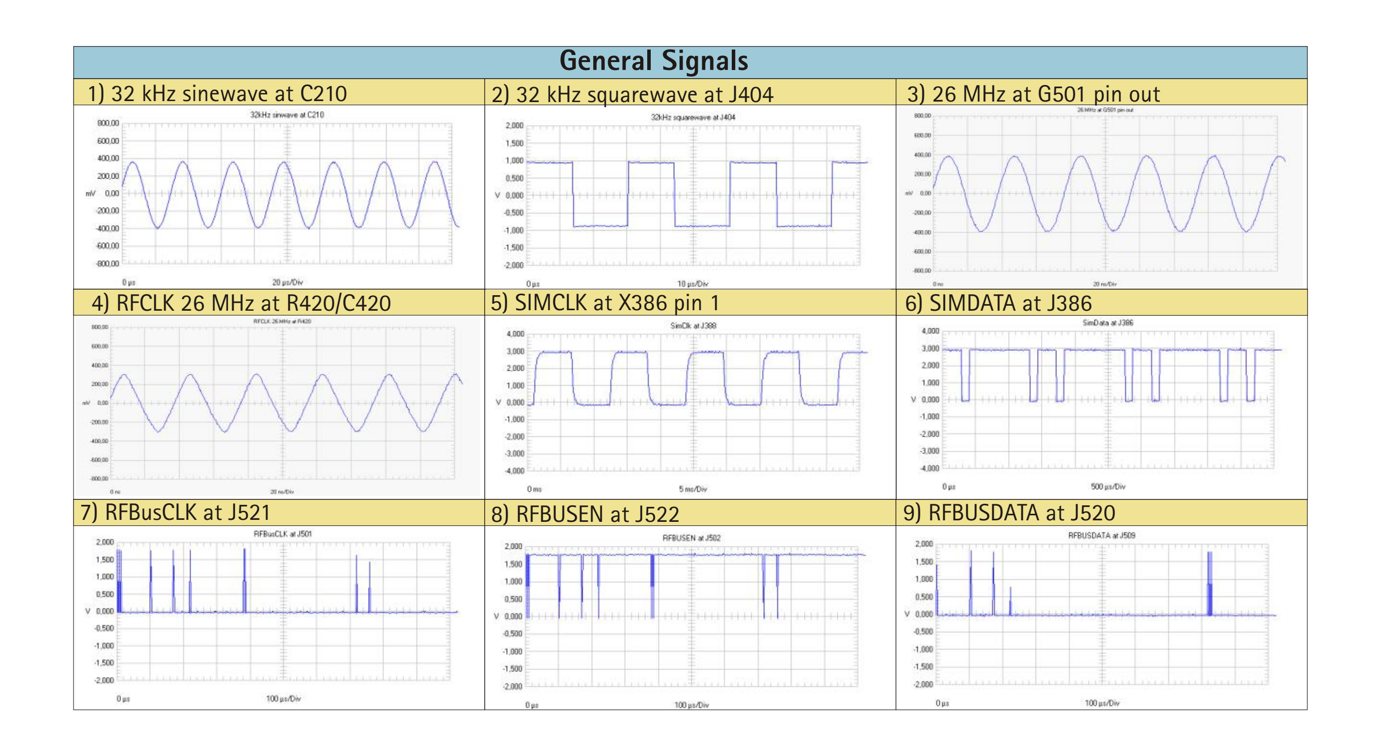
SCCE Training Group | NHL-4j/NHL-4jx (7250/7250i) | (PCB) Version_tb3_10a

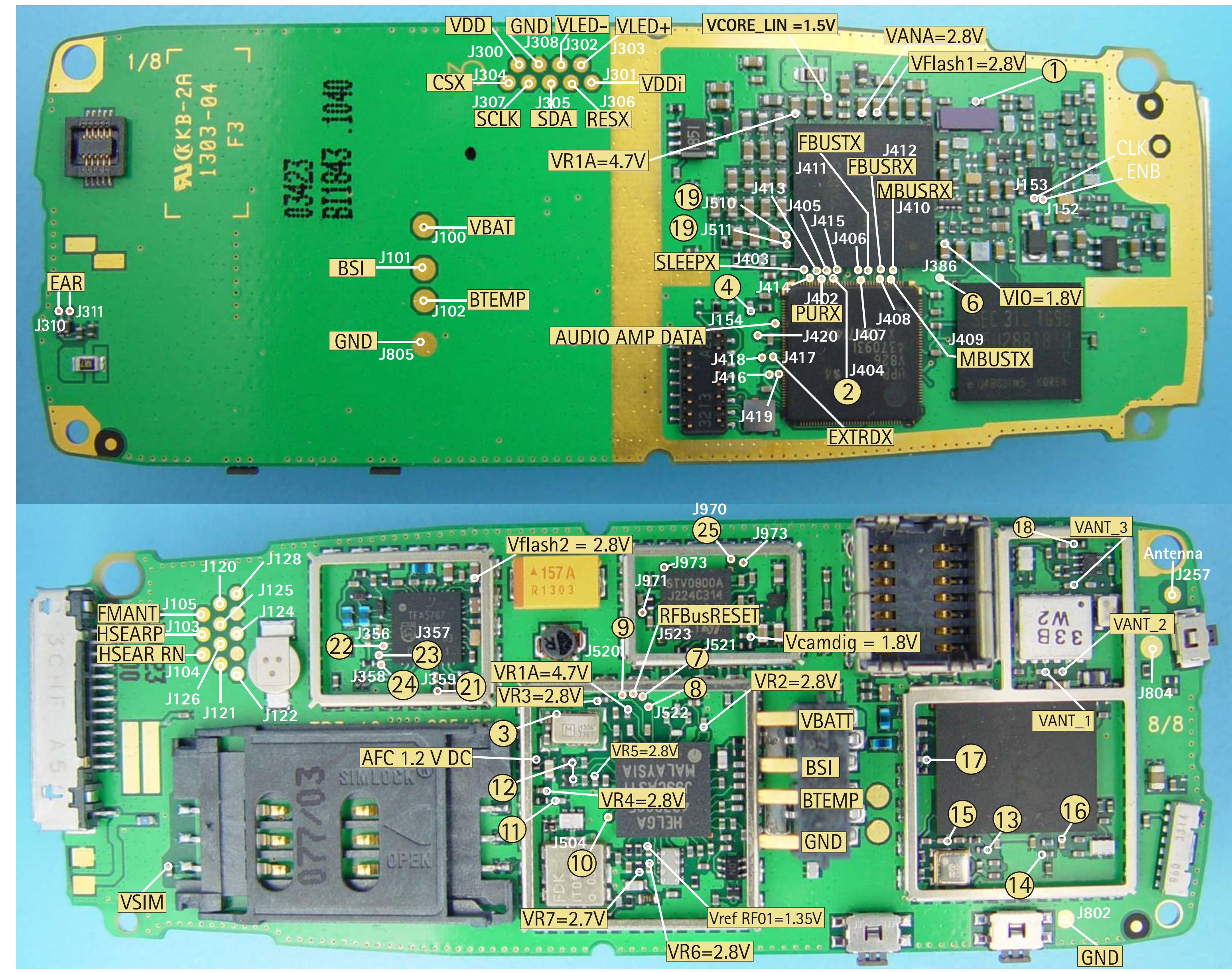
 | 09.07.2003

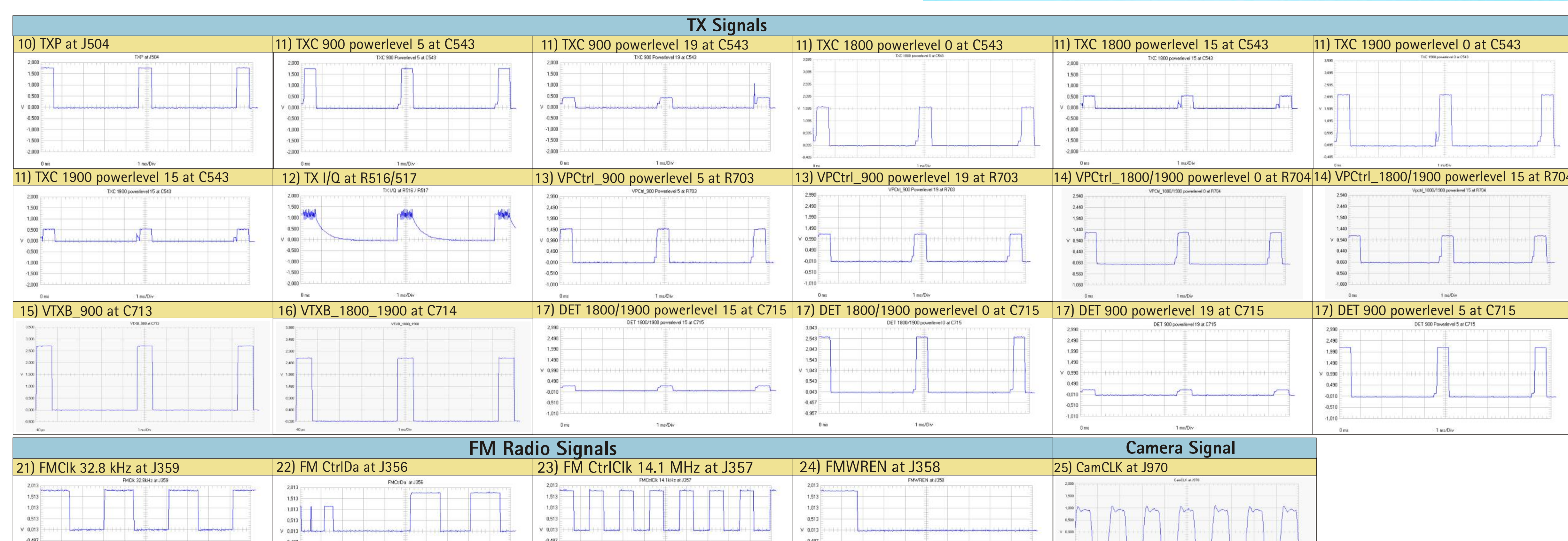
Band	Channel	RX	VC/RX	VCO/RX	TX	VCO/TX	VC/TX
GSM 900	37	942,4MHz	~2,58V	3769,6MHz	897,4MHz	3589,6MHz	~1,8V
GSM 1800	700	1842,8MHz	~2,2V	3685,6MHz	1747,8Mhz	3495,6MHz	~1,4V
GSM 1900	661	1960MHz	~3,2V	3920MHz	1880MHz	3760MHz	~2,54V

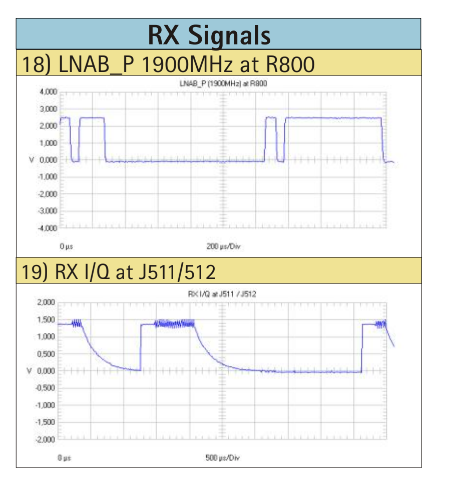


NOKIA	COMPANY CONFIDENTIAL		10(11)
Customer Care Europe, Middle East & Africa	Signal overview / Layout	Version 2.0 Approved	
SCCE Training Group	NHL-4j/NHL-4jx (7250/7250i)	(PCB) Version_tb3_10a	
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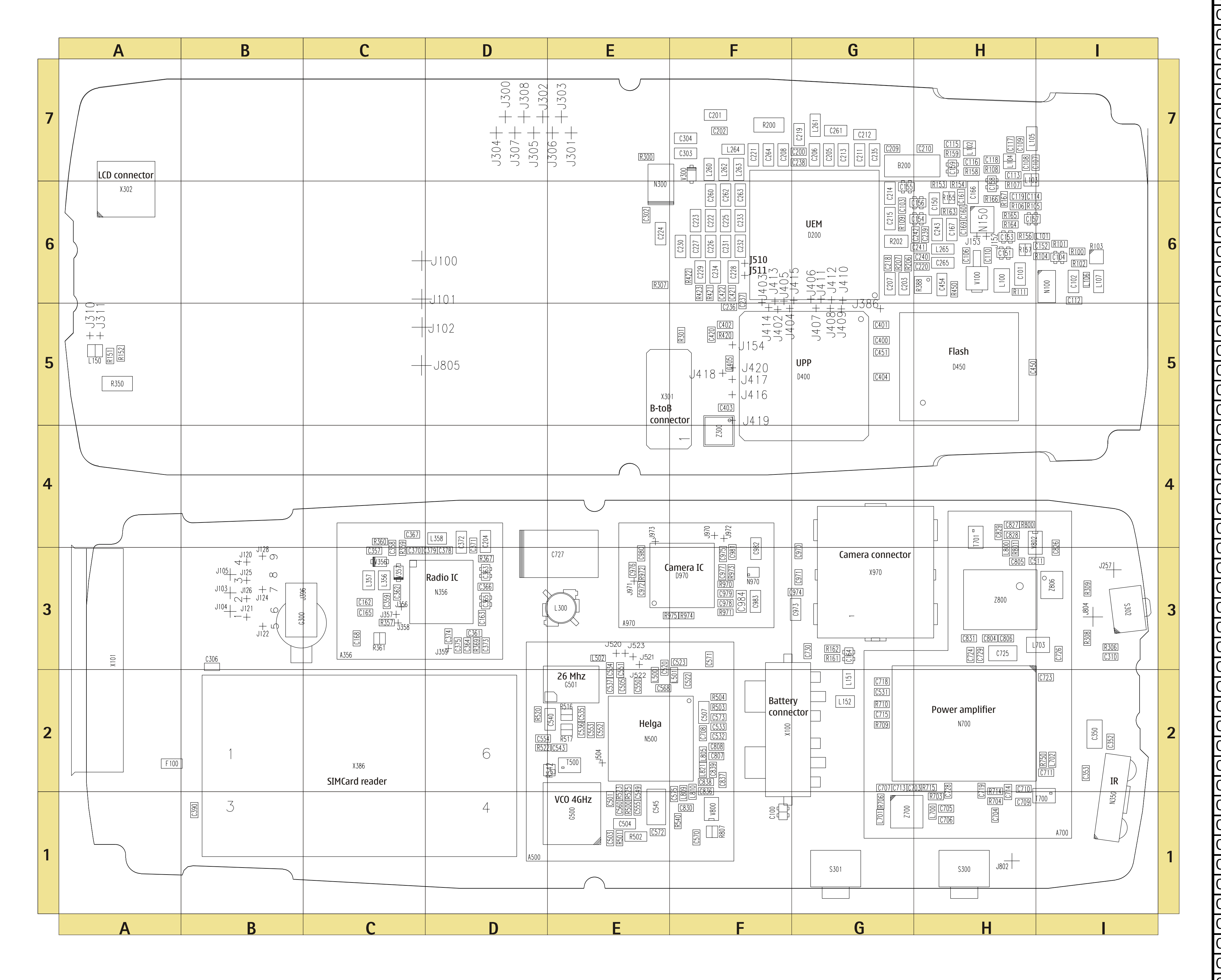








NOKIA	COMPANY CONFIDENTIAL		11(11)
Customer Care Europe, Middle East & Africa	Componentfinder	Version 2.0 Approved	
SCCE Training Group	NHL-4j/NHL-4jx (7250/7250i)	(PCB) Version_tb3_10a	
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B	C224 - E6	C454 - H6	C828 - H4	J357 - C3	L700 - H1	R421 - F6
B200 - G7	C225 - F6	C501 - E1	C829 - H4	J358 - C3	L701 - G1	R422 - F6
C	C226 - F6	C503 - E1	C830 - F1	J359 - D3	L702 - I3	R423 - F6
C100 - F1	C227 - F6	C504 - E1	C831 - H3	J386 - G5	L703 - I3	R450 - H6
C101 - H6	C228 - F6	C505 - E2	C836 - F2	J402 - F5	L800 - H3	R500 - E1
C102 - I6	C229 - F6	C507 - F2	C837 - F2	J403 - F6	L805 - F2	R501 - E1
C103 - G6	C230 - F6	C511 - I3	C838 - F2	J404 - F5	L809 - F2	R502 - E1
C104 - I6	C231 - F6	C520 - E3	C839 - F2	J405 - F6	L810 - F2	R503 - F2
C106 - H6	C232 - F6	C522 - F3	C970 - G3	J406 - G6	L821 - F2	R504 - F2
C107 - H7	C233 - F6	C523 - F3	C971 - G3	J407 - G5	N	R516 - E2
C108 - H7	C234 - F6	C531 - G2	C972 - E3	J408 - G5	N100 - I6	R517 - E2
C109 - H7	C235 - G7	C532 - F2	C973 - G3	J409 - G5	N150 - H6	R520 - D2
C110 - H6	C236 - F5	C533 - F2	C974 - G3	J410 - G6	N300 - E6	R522 - D2
C112 - I6	C237 - F6	C534 - E2	C975 - F3	J411 - G6	N350 - I1	R523 - E2
C113 - H7	C238 - G7	C535 - E2	C976 - E3	J412 - G6	N356 - D3	R525 - E2
C114 - H6	C239 - H6	C536 - E2	C977 - F3	J413 - F6	N500 - E2	R540 - F1
C115 - H7	C240 - H6	C537 - E2	C978 - F3	J414 - F5	N700 - H2	R542 - E2
C116 - H7	C241 - H6	C540 - E2	C979 - F3	J415 - G6	N970 - F3	R703 - H1
C117 - H7	C242 - H6	C543 - E2	C980 - E3	J416 - F5	R	R704 - H1
C118 - H7	C243 - H6	C545 - E1	C981 - F3	J417 - F5	R100 - I6	R706 - G1
C119 - H6	C260 - F6	C549 - E2	C982 - F3	J418 - F5	R101 - I6	R709 - G2
C150 - H6	C261 - G7	C550 - E2	C983 - F3	J419 - F5	R102 - I6	R710 - G2
C151 - H6	C262 - F6	C551 - E3	C984 - F3	J420 - F5	R103 - I6	R714 - H2
C152 - I6	C263 - F6	C552 - E2	D	J509 - E4	R104 - I6	R715 - H2
C153 - H6	C264 - F7	C553 - E2	D200 - G6	J510 - E2	R105 - H6	R750 - I2
C154 - H6	C265 - H6	C554 - D2	D400 - G5	J511 - D2	R106 - H6	R800 - H4
C155 - G6	C302 - E2	C555 - E1	D450 - H5	J512 - D2	R108 - H7	R801 - G3
C156 - H6	C303 - F1	C560 - E1	D970 - F3	J520 - E3	R109 - G6	R807 - F1
C157 - H6	C304 - F1	C568 - E2	F	J521 - E3	R111 - H6	R970- F3
C158 - H7	C310 - I3	C570 - F1	F100 - A2	J522 - E3	R151 - A5	R971 - F3
C159 - H7	C350 - I2	C571 - F3	G	J523 - E3	R152 - A5	R972 - E3
C160 - H6	C352 - I2	C572 - E1	G300 - B3	J802 - H1	R153 - H6	R973 - F3
C161 - H6	C353 - I2	C573 - F2	G500 - E1	J804 - I3	R154 - H6	R974 - F3
C162 - C3	C357 - C3	C575 - F1	G501 - E2	J805 - C5	R155 - H6	R975 - F3
C163 - D3	C358 - C4	C703 - H2	J	J970 - F4	R156 - H6	S
C164 - G3	C359 - C3	C704 - H1	J100 - C6	J971 - E3	R157 - H6	S300 - H1
C165 - C3	C361 - D3	C705 - H1	J101 - C6	J972 - F4	R158 - H7	S301 - G1
C166 - H6	C362 - C3	C706 - H1	J102 - C5	J973 - E4	R159 - H7	S302 - I3
C167 - H6	C363 - D3	C707 - G2	J103 - B3	L	R161 - G3	T
C168 - C3	C364 - D3	C708 - F2	J104 - B3	L100 - H6	R162 - G3	T500 - E2
C169 - H6	C365 - D3	C709 - H1	J105 - B3	L101 - I6	R163 - H6	T700 - I1
C200 - G7	C366 - D3	C710 - H2	J120 - B3	L102 - H7	R164 - H6	T701 - H4
C201 - F7	C367 - C4	C711 - I2	J121 - B3	L103 - I6	R165 - H6	V
C202 - F7	C370 - C3	C713 - G2	J122 - B3	L104 - H7	R166 - H6	V100 - H6
C203 - G6	C371 - D4	C714 - H1	J124 - B3	L105 - H7	R167 - H6	V300 - F7
C204 - D4	C372 - D4	C715 - G2	J125 - B3	L106 - I6	R200 - F7	V356 - C3
C205 - G7	C373 - D3	C718 - G2	J128 - B3	L107 - I6	R202 - G6	V357 - C3
C206 - G7	C374 - D3	C719 - H2	J152 - H6	L150 - A5	R206 - G6	V800 - F1
C207 - G6	C375 - D3	C723 - I2	J153 - H6	L151 - G3	R207 - G6	V802 - H4
C208 - F7	C378 - D3	C724 - H3	J154 - F5	L152 - G3	R300 - E7	X
C209 - G7	C379 - D3	C725 - H3	J257 - I3	L260 - F7	R301 - F5	X100 - F2
C210 - H7	C390 - B1	C726 - I3	J300 - D7	L261 - G7	R306 - I3	X101 - A3
C211 - G7	C400 - G5	C727 - E3	J301 - E7	L262 - F7	R307 - E6	X301 - E5
C212 - G7	C401 - G5	C728 - H3	J302 - D7	L263 - F7	R308 - I3	X302 - A6
C213 - G7	C402 - F5	C729 - H2	J303 - E7	L264 - F7	R309 - I3	X386 - C2
C214 - G6	C403 - F5	C730 - G3	J304 - D7	L265 - H6	R350 - A5	X970 - G3
C215 - G6	C404 - G5	C804 - H3	J305 - D7	L300 - E3	R357 - C3	Z
C218 - G6	C405 - F5	C805 - H3	J306 - E7	L356 - C3	R359 - C4	Z300 - F5
C219 - G7	C420 - F5	C806 - H3	J307 - D7	L357 - C3	R360 - C4	Z700 - H4
C220 - H6	C421 - F6	C807 - F2	J308 - D7	L358 - D3	R367 - D3	Z800 - H2
C221 - F7	C422 - F6	C808 - F2	J310 - A5	L500 - E2	R369 - D3	Z806 - H1
C222 - F6	C450 - I5	C826 - I3	J311 - A5	L501 - F2	R388 - H6	
C223 - F6	C451 - G5	C827 - H4	J356 - C3	L502- E3	R420 - F5	